

cold far below those hitherto attained by the employment of the latter substance. Ammonia was obtained in the state of solid white crystals, and retained this form at a temperature of -103° .

The following liquids could not be made to freeze at -166° ; namely, chlorine, ether, alcohol, sulphuret of carbon, caoutchoucine, camphine, and rectified oil of turpentine.

The following gases showed no signs of liquefaction when cooled by the carbonic acid bath, even when subjected to great pressure; namely,

Hydrogen, Oxygen, at a pressure of 27 atmospheres.

Nitrogen and nitric oxide at a pressure of 50 atmospheres.

Carbonic oxide at a pressure of 40 atmospheres.

Coal-gas at a pressure of 32 atmospheres.

January 23, 1845.

SIR JOHN WILLIAM LUBBOCK, Bart., V.P. and Treas. in
the Chair.

1. "Observations de la Déclinaison et Intensité Horizontales Magnétiques observées à Milan pendant vingt-quatre heures consécutives le 29 et 30 de Décembre 1844." Par M. Carlini.

2. "Remarks having reference to the Earthquake felt in Demerara on the morning of the 30th of August 1844." By Daniel Blair, Esq., Colonial Surgeon of British Guiana. Communicated by the Right Honourable Lord Stanley.

The earthquake here described commenced at twenty-seven minutes past three o'clock, a.m. on the 30th of August, and continued during two or three minutes. It appeared to be composed of two waves or pulsations quickly succeeding each other, and producing gyratory movements of the earth. Though the alarm it occasioned was very great, no serious damage seems to have resulted from it.

3. "An Account of the artificial formation of a Vegeto-alkali." By George Fownes, Esq., Chemical Lecturer in the Medical School of the Middlesex Hospital. Communicated by Thomas Graham, Esq., F.R.S., Professor of Chemistry in University College.

The substance which is the subject of investigation in this paper is a volatile oil, obtained by distillation from a mixture of bran, sulphuric acid and water, and is designated by the author by the name of *furfurol*. Its chemical composition is expressed by the formula $C^{15}H^6O^6$, and its properties are the following:—When free from water and freshly rectified, it is nearly colourless; but after a few hours, it acquires a brownish tint, which eventually deepens almost to blackness. When in contact with water, or when not properly rendered anhydrous, it is less subject to change, and merely assumes a yellow colour. Its odour resembles that of a mixture of bitter almond oil and oil of cassia, but has less fragrance. Its specific